Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the matter of	)	
	)	
Implementing Kari's Law and Section 506 of RAY BAUM'S Act	)	PS Docket No. 18-261
	)	
	)	
Inquiry Concerning 911 Access, Routing, and Location in Enterprise Communications Systems	)	PS Docket No. 17-239
	)	

COMMENTS OF THE NATIONAL EMERGENCY NUMBER ASSOCIATION

The National Emergency Number Association ("NENA")[1] hereby submits these comments in response to the Commission's Notice of Proposed Rulemaking ("NPRM")[2] in the above-captioned proceeding. We wish to emphasize in these comments that, as the functions of different methods of communications converge and the lines between these services continue to blur, market participants and regulators should seek to align to the extent possible the user experience of critical functions on these platforms, such as 9-1-1. This alignment extends especially to 9-1-1 location services, which are often the difference between life and death for a caller. Thus, in the context of Kari's Law and RAY BAUM'S Act, as well as the context of the

[1] NENA: The 9-1-1 Association improves 9-1-1 through research, standards development, training, education, outreach, and advocacy. Our vision is a public made safer and more secure through universally-available state-of-the-art 9-1-1 systems and trained 9-1-1 professionals. NENA is the only professional organization solely focused on 9-1-1 policy, technology, operations, and education issues.

[2] Implementing Kari's Law and Section 506 of RAY BAUM'S Act; Inquiry Concerning 911 Access, Routing, and Location in Enterprise Communications Systems, Notice of Proposed Rulemaking, FCC 18-132, (rel. Sept. 26, 2018) ("NPRM").

Commission's proposal to reorganize its rules pertaining to 9-1-1, NENA hopes the Commission will continue taking great strides toward making the 9-1-1 experience streamlined, simple, and safe for anyone on any technology — including real-time text and multimedia.

I. Implementation of Kari's Law

a. Notification

The Commission requests comment on rules for on-site notification of MLTS 9-1-1 calls.[3] NENA recognizes that the architecture of many corporate campuses — in terms of layout, security and access, and naming conventions — is often unique and idiosyncratic, and that assistance from on-site personnel can save seconds and lives. Thus, NENA's comments on this matter emphasize 9-1-1's need for timely, actionable information that allows responders to cooperate quickly and effectively with personnel who possess knowledge of the enterprise in question and, if necessary, the means to assist 9-1-1 in bringing aid to those who need it.

Notification Timing

NENA agrees with the Commission's assessment that "timely notification is essential."[4] Notification contemporaneous with the 9-1-1 call has significantly greater value to all parties than after-the-fact notification, and the majority of a notification's benefits to response are lost if the notification is not conveyed in real-time.

Notified Parties

[3] NPRM para. 19 et seq.
[4] NPRM para. 23.

Notification of site-specific personnel is important to the extent that those personnel can assist in access to the site of the 9-1-1 call. To this end, NENA believes that, when necessary, on-site notifications should go to whomever "has the keys," if a campus or building has restricted access and whomever has any specialized knowledge of the facility layout that may assist public safety in locating and responding to a 9-1-1 call. Depending on a facility's security system features, the notified party need not necessarily be on-site (e.g., if access to the facility can be granted remotely). NENA is aware that certain MLTS vendors and providers offer bundled security packages with their phone systems, and that this remote functionality would go hand-in-hand with public safety's need to quickly access an emergency. NENA wishes to emphasize, however, that the on-site notification process is not a substitute for 9-1-1, nor should it in any way delay the delivery of or response to a 9-1-1 call.[5]

Notification and Location Information

Notification is not a substitute for the delivery of accurate and actionable location information to 9-1-1. Numerous justifications for location information *in addition to* notification exist. First and most obvious is the absence or incapacitation of the notified party: if the party to which notification is directed is unavailable — or worse, part of the emergency — notification is moot, and the full extent of any location information must be passed directly to 9-1-1. Secondly, as the telephony marketplace makes rapid advances toward accurate indoor location, 9-1-1's operational procedures and technological capabilities become better able to guide field

[5] As stated in our response to the Commission's 2016 Notice of Inquiry, NENA "is aware that some organizations have routinely intercepted 9-1-1 calls to prevent them from reaching a PSAP." NENA's feelings on the matter (abhorrence) remain the same, when this practice is undertaken in order to protect the business interests of an enterprise.

responders through large, complex buildings and campuses. For instance, in cases where the MLTS serves a large corporate campus, in-building maps or call taker acquaintance with the building layout may mean 9-1-1 does not require the assistance of site personnel. In this case, failure to deliver accurate location data and reliance on a middleman will only add time and confusion to the response process, putting lives at risk. NENA believes that while site personnel notification goes hand-in-hand with the conveyance of location data to the ECC, it should not be used as a means to relax rules requiring the conveyance of this data.

Transitional Rules

The Commission requests comment on "whether [it] should adopt transitional rules to inform consumers of the [lack of] 9-1-1 capabilities of grandfathered MLTS."[6] NENA strongly supports some form of conspicuous notification on any MLTS handset not in compliance with the end-state Kari's Law implementation rules, and has enumerated model requirements for these notifications in its Model MLTS Legislation.[7] The public and public safety simply cannot afford an erosion of trust in 9-1-1 caused by avoidable consumer confusion.

Enforcement/Compliance

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[6] NPRM para. 41.

[7] See NENA Model MLTS Legislation, https://c.ymcdn.com/sites/www.nena.org/resource/collection/C3D071C2-FACD-41CB-A09C-354888272EF8/MLTS_2015.pdf . §6(a)(2)(A)–(C).

"(2) During the Transition Period, an MLTS Manager responsible for an MLTS that is not installed, configured, or maintained to provide direct access to 9-1-1 shall give notice to all users or potential users of each MLTS for which the MLTS Manager is responsible by: (a) Notifying regular users such as employees of the limitations on 9-1-1 calling by requiring them, on an annual basis, to sign a document, written in a language they can read, that explains that direct access to 9-1-1 is not available from the MLTS. (b) Placing on each station a label that explains, in type of at least 14 points size, how 9-1-1 can be reached, and that conspicuously lists the complete dial-string required to reach 9-1-1 in red type of at least 36 points size; and (c) Notifying temporary occupants such as hotel guests of the limitations of the MLTS at check-in, and advising such occupants of the required procedure for dialing 9-1-1."

NENA believes that operators and managers of MLTS systems are best positioned to coordinate with their local 9-1-1 authorities and Emergency Communications Centers (ECCs) to ensure the proper installation and function of their respective MLTS. Recognizing the diversity in enterprise IT staffing, however, means all players in the MLTS 9-1-1 space — including manufacturers, sellers, and 9-1-1 — should contribute to education and development of best practices for MLTS operation. In this manner, we agree with NCTA's *9-1-1 ECS NOI* Reply Comments (as cited by the Commission) that "[c]oordination and assignment of responsibilities among these ECS functions must be done seamlessly to ensure that 911 services function properly."[8]

II. Dispatchable Location

With regard to dispatchable location, public safety's priority lies in receiving accurate, timely, actionable information about a 9-1-1 call. From the caller's perspective, a patchwork of telephony technologies and methods should not result in a patchwork of 9-1-1 experiences and confusion regarding the capabilities of these experiences, especially in terms of location availability and accuracy. Automatic location is vastly preferred over Registered Location, as the latter has proved an insufficient substitute for the former.

Defining Dispatchable Location

NENA agrees with the Texas 9-1-1 Entities that more precise guidance on the parameters of the phrase "necessary to adequately identify the location of the calling party," and suggests that the distinctions enumerated in NENA's Model MLTS Legislation may help the Commission

[8] NPRM para. 55.

and stakeholders set more concrete expectations for MLTS dispatchable location.[9] Additional scenarios exist which may require more granular dispatchable location, however. These include Business MLTS containing an unusual number of physical security layers, such as data centers or Sensitive Compartmented Information Facilities (SCIFs). Additional granularity in location is further warranted in these applications because as physical security increases, the potential for disallowance of mobile phone use also increases, resulting in an increased proportion of 9-1-1 calls coming from the MLTS.

Validating Location

Currently, 9-1-1 requires addresses to be both validated against civic address databases like the Master Street Address Guide (MSAG) and its Next Generation 9-1-1 equivalent, the Location Validation Function (LVF), as well as corroborated for accuracy by the MLTS manager or operator. Numerous methods exist for validating civil addresses against both legacy and Next Generation 9-1-1 location databases, so MLTS managers or operators should have sufficient options to meet their needs. NENA agrees with the Texas 9-1-1 Entities that benefits of this validation and corroboration include both regulatory uniformity and future-proofing for the IP convergence.[10]

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[9] *See* Initial Comments of The Texas 9-1-1 Entities; NENA Model MLTS Legislation § 6(c)(1) – (3).

> "(1) Shared Residential MLTS shall provide a unique ELIN and ERL for each living unit and common area served, and may meeting the requirements for Business MLTS with respect to stations in all other areas.
> (2) Temporary Residency MLTS may provide a unique ELIN and ERL for each temporary residential unit served, and may meet the requirements for Business MLTS with respect to stations in all other areas.
> (3) Business MLTS may provide at least one ERL for each floor of each property served, and within each floor at least one additional ERL for each whole 7,000 square feet of Workspace beyond the first, plus one additional ERL for any remaining Workspace, if the MLTS is configured to also provide Alternative Notification."

[10] *See* Initial Comments of the Texas 9-1-1 Entities at 5.

Grandfathered Equipment

Even MLTS operators and managers often lack a thorough understanding of their systems' capacity to deliver location to 9-1-1. Thus, while these parties are generally in the best position to maintain the unique registered locations of their MLTS, NENA feels that vendors and manufacturers must bear some responsibility to (1) encourage accurate and regular update of location information, and (2) provide means to alert operators and managers when registered location information has become out-of-date or hardware has been moved.

The Commission also seeks comment on the costs and benefits of implementing its proposed regulations.[11] NENA understands that retiring legacy systems will cost MLTS operators, but wishes to emphasize to the Commission that extending the sunset for legacy MLTS (and accompanying support for these systems) beyond a reasonably expeditious timeline will cost 9-1-1, carriers, and potentially users (who, as the Commission notes) are put at risk by sub-par telephony technology.

MLTS and the NEAD

The Commission requests comment on the feasibility of using the National Emergency Address Database (NEAD) to help determine the locations of MLTS hardware.[12] There are currently plans for "Phase 2" of the NEAD, which will support enterprise reference points. This and other databases traditionally used for mobile phones could be leveraged by MLTS, especially fixed telephony and nomadic or wireless VoIP.

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[11] *See generally* NPRM para. 90.
[12] NPRM para. 45

a. Interconnected VoIP

For truly nomadic VoIP, Registered Location is not a sufficient substitute for automatic location update similar to that seen in mobile handsets. Users of nomadic VoIP simply move too much and update too little for 9-1-1 to rely on a wholly voluntary method of updating handset locations. The emergence of completely software-based VoIP applications (often found on a mobile phone) has also made automatic location updates more technologically and economically feasible for these services. Assuming precise automatic location updates are absolutely not technologically possible for interconnected VoIP products, NENA suggests the Commission require VoIP providers to more clearly notify users when it appears their actual location differs significantly from their Registered Location.

b. Other 9-1-1-Capable Services

The marketplace for easily-accessible VoIP services has seen massive growth and diversification since the Commission last refreshed the record on this matter. "Smart speakers" like Apple's HomePod, Amazon's Echo, and Google's Home have put a VoIP speakerphone conversation with friends and family just a voice command away in many American homes.[13] As these devices evolve in users' minds toward the "new home phone,"[14] NENA believes the Commission's proposal to expand its 9-1-1 service rules to include "911 VoIP Services," is well-informed and will help future-proof its rules as we move toward an all-IP 9-1-1 environment.[15] It

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[13] Indeed, analysis from Canalys shows that smart speaker manufacturers shipped nearly 17M units in Q2 2018, including 3.1M from Google and 2.8M from Amazon to the United States alone. https://www.canalys.com/newsroom/global-smart-speaker-shipments-grew-187-year-on-year-in-q2-2018-with-china-the-fastest-growing-market

[14] *See* "Alexa Can Do Many Things But Won't Call 911," Wall Street Journal, November 6, 2018, https://www.wsj.com/articles/alexa-can-do-many-things-but-wont-call-911-1541500202

[15] NPRM para. 82.

is our hope that the Commission's new regime will help encourage 9-1-1-by-design in future communications innovations.

III. Streamlining the Commission's 9-1-1 Rules

NENA supports the Commission's proposal to reorganize its 9-1-1 rules into a single Part.[16] NENA believes much of the confusion surrounding the MLTS and VoIP 9-1-1 rules comes as a result of the disparate and opaque structure of the existing rules; streamlining and reorganizing these rules into a more cogent structure will help all 9-1-1 stakeholders understand and comply with the Commissions regulations.

IV. Conclusion

NENA appreciates the opportunity to comment on this proceeding and is thankful for the Commission's hard work to guarantee more consistent 9-1-1 service for all Americans, across all platforms. We hope that the Commission will move forward with its proposals, and invites any further questions.

Respectfully submitted,

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[16] NPRM para. 103 *et seq*.